Implementing and Testing Priority Scheduler and Token Bucket Policer in differentiated Service

Abstract

Internet applications are growing rapidly. The requirement of QoS by these applications varies from very lenient to strict. Maintaining QoS is one of the most typical and challenging task in such scenario. Differentiated services architecture is very popular in such scenario. Differentiated Services is a practical method to implement traffic based service differentiation works on traffic aggregation, per hop behaviour forwarding. Differentiated services uses classifiers to categorize traffic in to flows, policies are defined to allocate the resources to flows and policers are used to shape the bursty traffic whereas schedulers are used to forward the traffic from various traffic queues.

References

- D. D. Clark and W. Fang. Explicit allocation of best effort packet delivery service,
- B. Pang and W. Gao. Design and performance evaluation of differentiated services
  router for next generation internet. In iccnmc, page 316. Published by the IEEE Computer
- M. A. Qadeer, V. Sharma, A. Agarwal, and S. S. Husain. Differentiated services with
  multiple random early detection algorithm using ns2 simulator. 2009.
- Poduri K Jacobson V, Nichols K. An expedited forwarding phb. IETF RFC, 2598, June
  1999.
- Weiss W Wroclawski J Heinanen J, Baker F. Assured forwarding phb group. IETF RFC,
  2597, June 1999.

Index Terms
  Computer Science  Networks

Keywords
  DiffServ  IntServ  Policer  Token bucket.